

SUMMARY OF REA CONSTRUCTION PROCEDURES

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CHART - Summary of REA Construction Procedures Following Loan Approval

1. PURPOSE

1.1 To present in outline form the step-by-step procedures and REA Forms to use, as described in REA Publications, to design and construct REA Financed Telephone Plant facilities.

2. GENERAL

2.1 REA program policies, procedures, and technical information issued in the REA Bulletin Series. There is available "Summary of REA Publications and List of Current REA Bulletins" which is an index to the attached "Summary of Procedures" in which the steps to be followed for the installation of central office equipment, outside plant, buildings, and special equipment are listed. The attached "Summary of Procedures" also lists REA Bulletins and TE&CM Sections necessary for preparation and completion of plans and specifications, contracts, construction and contract closeout. The summary lists the plans and specification categories for Outside Plant, Buildings, Special Equipment, Force Account and Engineering Services. Step 3 of the summary under the plans and specification category lists telephone plant that the Central Office Equipment, Building or Special Equipment contracts should include. Steps 3, 4, 5, and 6 list bulletins, TE&CM Sections, and Forms that are necessary for the preparation and completion of plans and specs, contracts, construction and the closeout of Central Office Equipment, Outside Plant, Building, Special Equipment, and engineer service contracts as well as force account proposals.

The following procedure should be followed for obtaining REA approval of various documents:

REA TE & CM 105

| <u>DOCUMENT</u> | <u>COE</u> | <u>O.P.</u> | <u>BUILDING</u> | <u>SPECIAL EQUIPMENT</u> | <u>F.A.</u> |
|----------------------------|------------|-------------|-----------------|--------------------------|-------------|
| Plans and Specifications | A | B | C | C | N.A. |
| Bids or Proposals | D | D | D | D | N.A. |
| Contracts or F.A. Proposal | E | E | E | E | E |
| Final Documents | A | A | A | A | A |

- A. Field Engineer reviews and sends to REA* for approval.
- B. Field Engineer reviews and approves.
- C. Field Engineer approves or submits to REA* for approval.
- D. Request REA* approval.
- E. Submit to REA* for approval.

*REA refers to Chief, Area Engineering Branch

CENTRAL OFFICE EQUIPMENT

TITLE OF PUBLICATION

| Bulletin or TE&CM | Form No. | |
|----------------------|-------------|--|
| B-340-3 | | Coordination of Borrowers' Activities with Connecting Systems |
| B-384-1 | | Purchasing and Installing Central Office Equipment |
| B-384-3 | | Central Office Equipment Contracts and Specifications |
| | 558 | General Specifications, Direct Acting |
| | 524 | General Specifications for Common Control Central Office Equipment |
| | 522 | General Specification for Digital, Stored Program Controlled COE |
| | 537 | REA Specifications of Equipment for Automatic Number Identification - CAMA |
| | 528 | Specifications for Private Automatic Branch Exchanges |
| | 538 | General Specification, Equipment for Direct Distance Dialing |
| | 542 | General Specifications, Toll Office Equipment |
| T-325 | | Application Guide for the Preparation of Detailed Dial Central Office Equipment Requirements |
| T-335 | | Application Guide for the Preparation of Detailed Common Control Central Office Equipment Requirements |
| T-322 | | Application Guide for the Preparation of Detailed Digital Central Office Equipment Requirements (Part III of Form 522) |
| T-328 | | Application Guide for the Preparation of Detailed Equipment Requirements for Automatic Number Identification Equipment |

CENTRAL OFFICE EQUIPMENT (Cont'd.)

TITLE OF PUBLICATION

| Bulletin or TE&CM | Form No. | |
|----------------------|-------------|--|
| T-750 | | Application Guide for the Preparation of Detailed PABX Equipment Requirements |
| T-327 | | Application Guide for the Preparation of Detailed Equipment Requirements for Direct Distance Dialing Equipment |
| T-326 | | Application Guide for the Preparation of Part III Specifications - Detailed Toll Office Equipment Requirements |
| | 810 | Central Office Equipment Engineering Information |
| | 525 | Central Office Equipment Contract |
| | 545 | Central Office Equipment Contract (Not Including Installation) |
| | 400 | Telephone Equipment Contract (Installation Only) |
| B-344-2 | | List of Materials Acceptable for Use on Telephone Systems of REA Borrowers |
| B-344-3 | | "Buy American" Requirements |
| B-345-45 | | Field Trials of Telephone Construction Materials and Equipment |
| B-320-15 | | Equal Employment Opportunity in Construction Financed with REA Loans |
| | 270 | Equal Opportunity Addendum |
| | 525a | Contractors Bond |
| | 399 | Supplement Agreement to Equipment Contract for Field Trial |

CENTRAL OFFICE EQUIPMENT (Cont'd.)

TITLE OF PUBLICATION

| Bulletin or TE&CM | Form No. | |
|----------------------|-------------|--|
| B-381-9 | | Amendments to Contracts for Construction or Installation of Telephone Borrowers' Facilities |
| B-384-2 | | Closeout Documents, Central Office Equipment Contracts |
| | 238 | Construction/Equipment Contract Amendment Bond Extension (20%) |
| | 754 | Certificate of Completion (Including Installation) |
| | 517 | Results of Acceptance Tests |
| | 752a | Certificate of Completion (Not Including Installation) |
| | 213 | Certificate, (Buy American) |
| | 400b | Certificate of Contractor and Indemnity Agreement |
| | 400c | Certificate of Completion, Telephone Equipment Contract (Installation Only) |

OUTSIDE PLANT
TITLE OF PUBLICATION

| Bulletin or TE&CM | Form No. | |
|----------------------|-------------|--|
| B-381-7 | | Methods of Construction of Telephone Borrowers' Initial System Outside Plant Facilities |
| B-381-8 | | Contract Construction, Telephone Borrowers' Initial System Outside Plant Facilities |
| B-383-1 | | Preparation of Telephone System Plans and Specifications for Construction of Outside Plant |
| B-381-2 | | Telephone System Construction Contract, Labor and Material Form 515 |
| B-305-1 | | Joint Use of Facilities for Telephone and Electric Service |
| | 515 | Telephone System Construction Contract |
| | 515a | Specifications & Drawings for Construction of Direct Buried Plant |
| | 515c | Specifications & Drawings for Conduit & Manhole Construction |
| | 515d | Specifications & Drawings for Underground Cable Installation |
| | 515f | Specifications & Drawings for Construction of Pole Lines, Aerial Cables & Wires |
| | 515g | Specifications & Drawings for Service Entrance & Station Protector Installation |
| | 263 | General Agreement Joint Use of Wood Poles |
| | 777 | Agreement for Joint Use of Electric System Poles |
| B-381-1 | | Tabulation of Bids for Contract Construction of Telephone Outside Plant Facilities |
| B-381-13 | | Bidders Qualifications |

OUTSIDE PLANT (Cont'd.)

TITLE OF PUBLICATION

| Bulletin or TE&CM | Form No. | |
|----------------------|-------------|--|
| B-344-2 | | List of Materials Acceptable for Use on Telephone Systems of REA Borrowers |
| B-381-9 | | Amendments to Contracts for Construction or Installation of Telephone Borrowers' Facilities |
| B-381-10 | | Subcontracts Under Contracts for Construction or Installation of Telephone Borrowers' Facilities |
| B-382-2 | | Construction of Telephone System Improvements and Extensions by Work Order or Contract |
| | 282 | Subcontract (Under Construction or Equipment) Contract |
| | 787 | Supplement A to Construction Contract |
| | 798 | List of Owner's Materials on Hand |
| | 798a | List of Materials ordered by Owner but not Delivered |
| | 168b | Contractors Bond |
| | 756 | Telephone Line Extension Construction Contract (Labor and Material) |
| | 778a | Summary of Construction Completed by Line Extension Contract (Inspected by Licensed Engineer or Borrower's Staff Engineer) |
| | 796 | Pre-Construction Conference |
| B-380-3 | 521 | Biweekly Progress Report of Telephone Construction and Engineering Services |
| B-381-11 | | Changes or Corrections in Line Construction |
| B-381-9 | | Amendments to Contracts for Construction or Installation of Telephone Borrowers' Facilities |

OUTSIDE PLANT (Cont'd.)

TITLE OF PUBLICATION

| Bulletin or TE&CM | Form No. | |
|----------------------|-------------|--|
| B-381-4 | | Closeout Documents, Telephone Construction Contract Labor and Materials (Outside Plant) |
| | 526 | Construction Contract Amendment Bond Extension (20%) |
| | 724 | Final Inventory, Telephone Construction Contract |
| | 724a | Final Inventory, Telephone Construction Col. 1-8 |
| | 724b | Final Inventory, Telephone Construction Col. 9 - 14 |
| | 281 | Tabulation of Materials Furnished by Borrower |
| | 213 | Certificate, (Buy American) |
| | 216 | Construction Change Order |
| | 224 | Waiver & Release of Lien |
| | 231 | Certificate of Contractor |
| | 527 | Statement of Construction, Telephone System - Outside Plant |

BUILDING
TITLE OF PUBLICATION

| tin &CM | Form No. | |
|------------|-------------|---|
| -1 | | Preparation of Plans and Specification for Construction of Telephone Borrower's Buildings |
| -2 | | Contract to Construct Buildings, REA Form 257 |
| -4 | | Presentation of Building Plans and Specifications |
| -5 | | Headquarters Facilities for Telephone Borrowers |
| -1 | | Right-of-Way and Title Procedures |
| | 772 | Specification for Construction of Unattended Telephone Central Office Building |
| | 772a | Plan of Unattended Telephone Central Office Building, Masonry Type |
| | 772b | Details for Connection of an Addition to Central Office Building (REA Form 772) |
| | 257 | Contract to Construct Buildings |
| | 257a | Contractor's Bond |
| 7-5 | | Contract Construction, Telephone Borrowers' Buildings |
| | 278 | Tabulation of Bids |
| | 238 | Construction/Equipment Contract Amendment |
| 1-9 | | Amendments to Contracts for Construction or Installation of Telephone Borrower's Facilities |
| 7-3 | | Final Documents Required to Close Out Construction of Buildings, Telephone Program |
| | 181 | Certificate of Completion, Contract Construction Buildings |
| | | Bond Extension (20%) |

REA TE&CM 105
EXHIBIT III

BUILDING (Cont'd.)

TITLE OF PUBLICATION

| <u>Bulletin or TE&CM</u> | <u>Form No.</u> | |
|----------------------------------|---------------------|-----------------------------|
| | 231 | Certificate of Contractor |
| | 224 | Waiver & Release of Lien |
| | 213 | Certificate, (Buy American) |

SPECIAL EQUIPMENT CONTRACTS

TITLE OF PUBLICATION

| Bulletin or TE&CM | Form No. | |
|----------------------|-------------|---|
| B-385-2 | | Purchasing and Installing Special Electronic Equipment |
| B-344-2 | | List of Materials Acceptable for Use on Telephone Systems of REA Borrowers |
| B-385-4 | | Special Equipment Contracts and Specifications |
| | 397b | REA Design Specifications for Wire Line Trunk Carrier Systems |
| | 397c | Subscriber Carrier Specifications |
| | 397d | REA Design Specifications for Point-to-Point Microwave Radio Systems |
| | 397e | Mobile and Fixed Dial Radiotelephone Equipment Specifications |
| | 397g | Performance Specification for Subscriber Line Concentrators |
| | 397a | Voice Frequency Repeaters and Voice Frequency Repeatered Trunk Specifications |
| T-904 | | Application Guide for Trunk Carrier Specifications |
| T-903 | | Application Guide for Subscriber Carrier Specifications |
| T-933 | | Application Guide for Point-to-Point Radio (Microwave) Specifications |
| T-943 | | Application Guide for Mobile and Fixed Dial Radiotelephone Specifications |
| T-341 | | Application Guide for the Preparation of Detailed Subscriber Line Concentrator Requirements |

SPECIAL EQUIPMENT CONTRACTS (Cont'd.)

TITLE OF PUBLICATION

| Bulletin or TE&CM | Form No. | |
|----------------------|-------------|--|
| | 397 | Special Equipment Contract (Including Installation) |
| | 398 | Special Equipment Contract (Not Including Installation) |
| | 400 | Telephone Equipment Contract (Installation Only) |
| B-344-3 | | "Buy American" Requirements |
| B-320-15 | | Equal Employment Opportunity in Construction Financed with REA Loans |
| B-345-45 | | Field Trials of Telephone Construction Materials and Equipment |
| | 397f | Contractor's Bond (Special Telephone Equipment) |
| | 270 | Equal Opportunity Addendum |
| | 399 | Supplemental Agreement to Equipment Contract for Field Trial |
| B-385-3 | | Closeout Documents for Special Equipment Contracts |
| B-381-9 | | Amendments to Contracts for Construction or Installation of Telephone Borrower's Facilities |
| | 238 | Construction Equipment Contract Amendment (Bond Extension 20%) |
| | 396 | Certificate of Completion - Special Equipment Contracts (Including Installation) |
| | 396a | Certificate of Completion - Special Equipment Contracts (Not Including Installation) |
| | 744 | Certificate of Contractor and Indemnity Agreement |
| | 213 | Certificate (Buy American) |
| | 400b | Certificate of Contractor & Indemnity |
| | 400c | Certificate of Completion, Telephone Equipment Contract (Installation Only) |

FORCE ACCOUNT PROPOSAL

TITLE OF PUBLICATION

| Bulletin or TE&CM | Form No. | |
|----------------------|-------------|--|
| B-382-1 | | Force Account Construction, Telephone Borrowers' Initial Systems |
| B-344-2 | | List of Materials Acceptable for Use on Telephone Systems of REA Borrowers |
| | 515 | Telephone System Construction Contract |
| B-380-3 | | Weekly Progress Report of Telephone Construction and Engineering Services |
| B-382-2 | | Final Inventory Documents, Force Account Construction, Telephone Borrowers' Initial System |
| | 521 | Biweekly Progress Report of Telephone Construction and Engineering Services |
| | 817 | Final Inventory, Telephone Force Account Construction |
| | 817a | Final Inventory, Telephone Force Account Construction, Cols. 1 - 8 |
| | 817b | Final Inventory, Telephone Force Account Construction, Cols. 9 - 14 |
| | 527 | Statement of Construction |
| | 213 | Certificate, (Buy American) |

ENGINEERING AND ARCHITECTURAL
SERVICE CONTRACTS

TITLE OF PUBLICATION

| Bulletin or TE&CM | Form No. | |
|----------------------|-------------|--|
| B-341-3 | | Engineering Services for Telephone Borrowers |
| B-342-1 | | Architectural Services for Telephone Borrowers |
| | 217 | Postloan Engineering Services Contract Telephone Systems |
| | 165 | Architectural Services Contract - Telephone |
| | 506 | Statement of Engineering Fee - Telephone |
| | 179 | Architects and Engineers Qualifications |
| | 223 | Amendment of Telephone Engineering Service Contract - Additional Project |
| | 241 | Amendment of Engineering Service Contract |
| | 245 | Engineering Services Contract, Special Services |
| | 242 | Assignment of Engineering Services Contract |
| B-341-1 | | Final Statement of Engineering Fee and Certificate of Engineer, Telephone Engineering Service Contract |
| B-387-3 | | Final Documents Required to Closeout Construction of Buildings, Telephone Program |
| | 284 | Statement of Architect's Fee |

